PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of	Group Art Unit 1642
NEEDLEMAN et al.	Examiner: Minh-Tam Davis
Serial No. 09/387,340	
Filed: August 31, 1999	Atty. Docket: MON-102.0-C (3119-C)(061765.00367)
Continued Prosecution Application Filed: January 4, 2002	

For: **AN IMMUNOLOGICAL PROCESS FOR INCREASING THE HDL CHOLESTROL CONCENTRATION (AS AMENDED)**

SUPPLEMENTAL COMMUNICATION

The Honorable Assistant Commissioner
for Patents
Washington, D.C. 20231

Sir:

Based upon matters discussed in earlier interviews with Examiner Davis and after reflecting upon previous Office Actions in this and related applications, applicants would like to present some additional remarks in support of the patentability of the pending claims for consideration during the examination of the pending application.

In the previous paper, applicants explained the patentable distinction between the claimed invention and the subject matter of several documents previously cited in Information Disclosure Statements, *viz,* [A19] Swenson et al., J. Biol. Chem., 264:14318-14326, 1989; [A21] Whitlock et al., J. Clin. Invest., 84:129-137, 1989; [A22] Evans et al., J. Lipid Res 35:1634-1645, 1994; and [A23] Zuckerman et al., Lipids, 30:307-311, 1995. As explained, these articles are each directed to passive xenogenic immunization and thus differ radically from the active autogenic

immunization of the pending claims. The cited articles simply chronicle the temporary reductions in CETP that might be accomplished using passive immunization with xenogenic antibodies (a "process in which antibodies [produced] from an animal of one species are administered to an animal of another species, [see application page 13 ln 31-33]).

One additional document, which in some respects is similar to the ones addressed earlier, but which was not addressed in the prior filing even though it had been cited in other Office Actions, is Jeung et. al (Mol Cells 4:529-533, 1994 [A26]). The authors of this article describe an experiment in which rabbits were given an injection of the human C-terminal 31 amino acid residues (e.g. SEQ ID 29, resides 446-476)of CETP covalently linked to GST. Because this peptide is foreign to rabbits and has a different amino acid sequence than the rabbit protein (as shown below the human protein has four different amino acid residues relative to the rabbit protein), the administered peptide would have been expected to be (and was) immunogenic in rabbits.

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human       PEIITRDGFLLLQMDFGFPEHLLVDFLQSLS
            :::::X::X::::::::::X::::::::::X
rabbit      PEIITLDGCLLLQMDFGFPKHLLVDFLQSL
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In the experiments, immunizations of the rabbits were performed by initial injections followed by one booster injection. This immunization protocol was sufficient to induce production of antibodies in the rabbit that reacted with the human CETP. This result is not at all surprising, given the foreign nature of the inoculum. As with the documents discussed in the prior filing, Jeung et al., also relates to a process of xenogenic immunization. As with the other documents, this reported study merely demonstrates production of antibodies against a CETP protein (human CETP), which was xenogenic (foreign) to the host (rabbit).

Pointedly, nowhere in Jeung et al., are any results presented indicating (1) that the immunizations conferred any sort of memory recognition; (2) that the raised antibody was also cross-reactive with rabbit CETP; or (3) that such antibodies had the ability to alter cholesterol metabolism in the inoculated rabbits. Indeed, the author's own conclusion was simply limited to the observation that "the antisersum would be useful for overcoming the difficulty of CETP

purification and as an immunological tool for CETP assay in future studies." (page 529 - summary).

In the present invention, human CETP, which is autogenic to the host (self) is used to raise antibodies that cross-react with endogenous host CETP, thereby altering cholesterol metabolism in the human host. None of these features are disclosed or made obvious in the Jeung article. Indeed, Jeung et al., does not even suggest using the antibodies raised in the rabbit for passive immunization and for that reason may be considered even less relevant than the documents described in the prior paper.

On the basis of the above, applicants respectfully request consideration of the subject application.

Please charge our Deposit Account No. 19-0733 for any fee.

Respectfully submitted,

Dated: May 21, 2002

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